
Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2008; month=1; day=18; hr=11; min=59; sec=42; ms=155;]

Validated By CRFValidator v 1.0.3

Application No: 10807799 Version No: 2.0

Input Set:

Output Set:

Started: 2008-01-07 13:50:23.307

Finished: 2008-01-07 13:50:23.703

Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 396 ms

Total Warnings: 0

Total Errors: 0

No. of SeqIDs Defined: 3

Actual SeqID Count: 3

SEQUENCE LISTING

<110> CELL SIGNALING TECHNOLOGY, INC. WETZEL, Randall K BROWN, Carrie A <120> ANTIBODIES SPECIFIC FOR THE BCR-ABL FUSION PROTEIN AND USES THEREOF <130> 080095-0024 <140> 10807799 <141> 2004-03-24 <160> 3 <170> PatentIn version 3.4 <210> 1 <211> 307 <212> PRT <213> Homo sapiens <220> <221> MISC_FEATURE <222> (98)..(99) <223> BCR-ABL fusion joint occurs a Lys-Glu, residues 98-99 <400> 1 Ala Asn Lys Gly Ser Lys Ala Thr Glu Arg Leu Lys Lys Lys Leu Ser 5 10 Glu Gln Glu Ser Leu Leu Leu Met Ser Pro Ser Met Ala Phe Arg 20 25 Val His Ser Arg Asn Gly Lys Ser Tyr Thr Phe Leu Ile Ser Ser Asp 35 40 45 Tyr Glu Arg Ala Glu Trp Arg Glu Asn Ile Arg Glu Gln Gln Lys Lys 50 55 60 Cys Phe Arg Ser Phe Ser Leu Thr Ser Val Glu Leu Gln Met Leu Thr 70 75 65 80 Asn Ser Cys Val Lys Leu Gln Thr Val His Ser Ile Pro Leu Thr Ile 85 90 95

Asn Lys Glu Glu Ala Leu Gln Arg Pro Val Ala Ser Asp Phe Glu Pro

100 105 110

Gln Gly Leu Ser Glu Ala Ala Arg Trp Asn Ser Lys Glu Asn Leu Leu 115 120 125

Ala Gly Pro Ser Glu Asn Asp Pro Asn Leu Phe Val Ala Leu Tyr Asp 130 135 140

Leu Arg Val Leu Gly Tyr Asn His Asn Gly Gln Trp Cys Gln Ala Gln $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$

Thr Lys Asn Gly Gln Gly Trp Val Pro Ser Asn Tyr Ile Thr Pro Val 180 185 190

Asn Ser Leu Glu Lys His Ser Trp Tyr His Gly Pro Val Ser Arg Asn 195 200 205

Ala Ala Gl
n Tyr Leu Leu Ser Ser Gly Ile As
n Gly Ser Phe Leu Val210 225 220

Arg Glu Ser Glu Ser Ser Pro Gly Gln Arg Ser Ile Ser Leu Arg Tyr 225 230 235 240

Glu Gly Arg Val Tyr His Tyr Arg Ile Asn Thr Ala Ser Asp Gly Lys 245 250 255

Leu Tyr Val Ser Ser Glu Ser Arg Phe Asn Thr Leu Ala Glu Leu Val 260 265 270

His His Ser Thr Val Ala Asp Gly Leu Ile Thr Thr Leu His Tyr 275 280 285

Pro Ala Pro Lys Arg Asn Lys Pro Thr Val Tyr Gly Val Ser Pro Asn 290 295 300

Tyr Asp Lys 305

<210> 2 <211> 1130 <212> PRT

<213> Homo sapiens

<400> 2

Met Leu Glu Ile Cys Leu Lys Leu Val Gly Cys Lys Ser Lys Lys Gly
1 5 10 15

Leu Ser Ser Ser Ser Cys Tyr Leu Glu Glu Ala Leu Gln Arg Pro
20 25 30

Val Ala Ser Asp Phe Glu Pro Gln Gly Leu Ser Glu Ala Ala Arg Trp 35 40 45

Asn Ser Lys Glu Asn Leu Leu Ala Gly Pro Ser Glu Asn Asp Pro Asn 50 55 60

Leu Phe Val Ala Leu Tyr Asp Phe Val Ala Ser Gly Asp Asn Thr Leu 65 70 75 80

Ser Ile Thr Lys Gly Glu Lys Leu Arg Val Leu Gly Tyr Asn His Asn 85 90 95

Gly Glu Trp Cys Glu Ala Gln Thr Lys Asn Gly Gln Gly Trp Val Pro 100 105 110

Ser Asn Tyr Ile Thr Pro Val Asn Ser Leu Glu Lys His Ser Trp Tyr 115 120 125

His Gly Pro Val Ser Arg Asn Ala Ala Glu Tyr Leu Leu Ser Ser Gly 130 135 140

Arg Ser Ile Ser Leu Arg Tyr Glu Gly Arg Val Tyr His Tyr Arg Ile $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$

Asn Thr Ala Ser Asp Gly Lys Leu Tyr Val Ser Ser Glu Ser Arg Phe 180 185 190

Asn Thr Leu Ala Glu Leu Val His His Ser Thr Val Ala Asp Gly
195 200 205

Leu	Ile 210	Thr	Thr	Leu	His	Tyr 215	Pro	Ala	Pro	Lys	Arg 220	Asn	Lys	Pro	Thr
Val 225	Tyr	Gly	Val	Ser	Pro 230	Asn	Tyr	Asp	Lys	Trp 235	Glu	Met	Glu	Arg	Thr 240
Asp	Ile	Thr	Met	Lys 245	His	Lys	Leu	Gly	Gly 250	Gly	Gln	Tyr	Gly	Glu 255	Val
Tyr	Glu	Gly	Val 260	Trp	Lys	Lys	Tyr	Ser 265	Leu	Thr	Val	Ala	Val 270	Lys	Thr
Leu	Lys	Glu 275	Asp	Thr	Met	Glu	Val 280	Glu	Glu	Phe	Leu	Lys 285	Glu	Ala	Ala
	Met 290				-	295					300				
305	Thr				310		_			315					320
	Asn			325					330					335	
	Val		340		_			345					350		
-	Leu	355	-	-			360			-		365			
	1 Leu 370					375					380				
385	Arg				390			_		395					400
	Pro			405					410			_		415	
Ser	Ile	Lys	Ser 420	Asp	Val	Trp	Ala	Phe 425	Gly	Val	Leu	Leu	17p	Glu	Ile

Ala Thr Tyr Gly Met Ser Pro Tyr Pro Gly Ile Asp Leu Ser Gln Val

435 440 445

Tyr Glu Leu Leu Glu Lys Asp Tyr Arg Met Glu Arg Pro Glu Gly Cys 450 455 460 Pro Glu Lys Val Tyr Glu Leu Met Arg Ala Cys Trp Gln Trp Asn Pro 470 475 Ser Asp Arg Pro Ser Phe Ala Glu Ile His Gln Ala Phe Glu Thr Met 485 490 495 Phe Gln Glu Ser Ser Ile Ser Asp Glu Val Glu Lys Glu Leu Gly Lys 500 505 510 Gln Gly Val Arg Gly Ala Val Ser Thr Leu Leu Gln Ala Pro Glu Leu 515 520 525 Pro Thr Lys Thr Arg Thr Ser Arg Ala Ala Glu His Arg Asp Thr 530 535 540 Thr Asp Val Pro Glu Met Pro His Ser Lys Gly Gln Gly Glu Ser Asp 545 550 555 Pro Leu Asp His Glu Pro Ala Val Ser Pro Leu Leu Pro Arg Lys Glu 565 570 575 Arg Gly Pro Pro Glu Gly Gly Leu Asn Glu Asp Glu Arg Leu Leu Pro 585 580 590 Lys Asp Lys Lys Thr Asn Leu Phe Ser Ala Leu Ile Lys Lys Lys 595 600 605 Lys Thr Ala Pro Thr Pro Pro Lys Arg Ser Ser Phe Arg Glu Met 610 615 620 Asp Gly Gln Pro Glu Arg Arg Gly Ala Gly Glu Glu Gly Arg Asp 625 630 635 640 Ile Ser Asn Gly Ala Leu Ala Phe Thr Pro Leu Asp Thr Ala Asp Pro 650 645

Ala Lys Ser Pro Lys Pro Ser Asn Gly Ala Gly Val Pro Asn Gly Ala

665

670

660

Leu	Arg	Glu 675	Ser	Gly	Gly	Ser	Gly 680	Phe	Arg	Ser	Pro	His 685	Leu	Trp	Lys
Lys	Ser 690	Ser	Thr	Leu	Thr	Ser 695	Ser	Arg	Leu	Ala	Thr 700	Gly	Glu	Glu	Glu
Gly 705	Gly	Gly	Ser	Ser	Ser 710	Lys	Arg	Phe	Leu	Arg 715	Ser	Суз	Ser	Ala	Ser 720
Cys	Val	Pro	His	Gly 725	Ala	Lys	Asp	Thr	Glu 730	Trp	Arg	Ser	Val	Thr 735	Leu
Pro	Arg	Asp	Leu 740	Gln	Ser	Thr	Gly	Arg 745	Gln	Phe	Asp	Ser	Ser 750	Thr	Phe
Gly	Gly	His 755	Lys	Ser	Glu	Lys	Pro 760	Ala	Leu	Pro	Arg	Lys 765	Arg	Ala	Gly
Glu	Asn 770	Arg	Ser	Asp	Gln	Val 775	Thr	Arg	Gly	Thr	Val 780	Thr	Pro	Pro	Pro
Arg 785	Leu	Val	Lys	Lys	Asn 790	Glu	Glu	Ala	Ala	Asp 795	Glu	Val	Phe	Lys	Asp 800
Ile	Met	Glu	Ser	Ser 805	Pro	Gly	Ser	Ser	Pro 810	Pro	Asn	Leu	Thr	Pro 815	Lys
Pro	Leu	Arg	Arg 820	Gln	Val	Thr	Val	Ala 825	Pro	Ala	Ser	Gly	Leu 830	Pro	His
Lys	Glu	Glu 835	Ala	Gly	Lys	Gly	Ser 840	Ala	Leu	Gly	Thr	Pro 845	Ala	Ala	Ala
Glu	Pro 850	Val	Thr	Pro	Thr	Ser 855	Lys	Ala	Gly	Ser	Gly 860	Ala	Pro	Gly	Gly
Thr 865	Ser	Lys	Gly	Pro	Ala 870	Glu	Glu	Ser	Arg	Val 875	Arg	Arg	His	Lys	His 880
Ser	Ser	Glu	Ser	Pro	Gly	Arg	Asp	Lys	Gly	Lys	Leu	Ser	Arg	Leu	Lys

Pro	Ala	Pro	Pro	Pro	Pro	Pro	Ala	Ala	Ser	Ala	Gly	Lys	Ala	Gly	Gly
			900					905					910		

- Lys Pro Ser Gln Ser Pro Ser Gln Glu Ala Ala Gly Glu Ala Val Leu 915 920 925
- Gly Ala Lys Thr Lys Ala Thr Ser Leu Val Asp Ala Val Asn Ser Asp 930 935 940
- Ala Ala Lys Pro Ser Gln Pro Gly Glu Gly Leu Lys Lys Pro Val Leu 945 950 955 960
- Pro Ala Thr Pro Lys Pro Gln Ser Ala Lys Pro Ser Gly Thr Pro Ile 965 970 975
- Ser Pro Ala Pro Val Pro Ser Thr Leu Pro Ser Ala Ser Ser Ala Leu 980 985 990
- Ala Gly Asp Gln Pro Ser Ser Thr Ala Phe Ile Pro Leu Ile Ser Thr 995 1000 1005
- Arg Val Ser Leu Arg Lys Thr Arg Gln Pro Pro Glu Arg Ile Ala 1010 $$ 1015 $$ 1020
- Leu Cys Leu Ala Ile Ser Arg Asn Ser Glu Gln Met Ala Ser His 1040 1045 1050
- Ser Ala Val Leu Glu Ala Gly Lys Asn Leu Tyr Thr Phe Cys Val 1055 1060 1065
- Ser Tyr Val Asp Ser Ile Gln Gln Met Arg Asn Lys Phe Ala Phe 1070 1075 1080
- Arg Glu Ala Ile Asn Lys Leu Glu Asn Asn Leu Arg Glu Leu Gln 1085 1090 1095
- Ile Cys Pro Ala Thr Ala Gly Ser Gly Pro Ala Ala Thr Gln Asp 1100 1105 1110

Phe Ser Lys Leu Leu Ser Ser Val Lys Glu Ile Ser Asp Ile Val 1115 1120 1125

Gln Arg 1130

<210> 3

<211> 1271

<212> PRT

<213> Homo sapiens

<400> 3

Met Val Asp Pro Val Gly Phe Ala Glu Ala Trp Lys Ala Gln Phe Pro 1 5 10 15

Asp Ser Glu Pro Pro Arg Met Glu Leu Arg Ser Val Gly Asp Ile Glu 20 25 30

Gln Glu Leu Glu Arg Cys Lys Ala Ser Ile Arg Arg Leu Glu Gln Glu 35 40 45

Val Asn Gln Glu Arg Phe Arg Met Ile Tyr Leu Gln Thr Leu Leu Ala 50 60

Lys Glu Lys Lys Ser Tyr Asp Arg Gln Arg Trp Gly Phe Arg Arg Ala 65 70 75 80

Ala Gln Ala Pro Asp Gly Ala Ser Glu Pro Arg Ala Ser Ala Ser Arg 85 90 95

Pro Gln Pro Ala Pro Ala Asp Gly Ala Asp Pro Pro Pro Ala Glu Glu 100 105 110

Pro Glu Ala Arg Pro Asp Gly Glu Gly Ser Pro Gly Lys Ala Arg Pro 115 120 125

Gly Thr Ala Arg Arg Pro Gly Ala Ala Ala Ser Gly Glu Arg Asp Asp 130 135 140

Arg Gly Pro Pro Ala Ser Val Ala Ala Leu Arg Ser Asn Phe Glu Arg 145 150 155 160

Ile Arg Lys Gly His Gly Gln Pro Gly Ala Asp Ala Glu Lys Pro Phe \$165\$ \$170\$ \$175\$

Tyr	Val	Asn	Val 180	Glu	Phe	His	His	Glu 185	Arg	Gly	Leu	Val	Lys 190	Val	Asn
Asp	Lys	Glu 195	Val	Ser	Asp	Arg	Ile 200	Ser	Ser	Leu	Gly	Ser 205	Gln	Ala	Met
Gln	Met 210	Glu	Arg	Lys	Lys	Ser 215	Gln	His	Gly	Ala	Gly 220	Ser	Ser	Val	Gly
Asp 225	Ala	Ser	Arg	Pro	Pro 230	Tyr	Arg	Gly	Arg	Ser 235	Ser	Glu	Ser	Ser	Cys 240
Gly	Val	Asp	Gly	Asp 245	Tyr	Glu	Asp	Ala	Glu 250	Leu	Asn	Pro	Arg	Phe 255	Leu
Lys	Asp	Asn	Leu 260	Ile	Asp	Ala	Asn	Gly 265	Gly	Ser	Arg	Pro	Pro 270	Trp	Pro
Pro	Leu	Glu 275	Tyr	Gln	Pro	Tyr	Gln 280	Ser	Ile	Tyr	Val	Gly 285	Gly	Met	Met
Glu	Gly 290	Glu	Gly	Lys	Gly	Pro 295	Leu	Leu	Arg	Ser	Gln 300	Ser	Thr	Ser	Glu
Gln 305	Glu	Lys	Arg	Leu	Thr 310	Trp	Pro	Arg	Arg	Ser 315	Tyr	Ser	Pro	Arg	Ser 320
Phe	Glu	Asp	Суз	Gly 325	Gly	Gly	Tyr	Thr	Pro 330	Asp	Cys	Ser	Ser	Asn 335	Glu
Asn	Leu	Thr	Ser 340	Ser	Glu	Glu	Asp	Phe 345	Ser	Ser	Gly	Gln	Ser 350	Ser	Arg
Val	Ser	Pro 355	Ser	Pro	Thr	Thr	Tyr 360	Arg	Met	Phe	Arg	Asp 365	Lys	Ser	Arg
Ser	Pro 370	Ser	Gln	Asn	Ser	Gln 375	Gln	Ser	Phe	Asp	Ser 380	Ser	Ser	Pro	Pro
Thr 385	Pro	Gln	Суз	His	Lys 390	Arg	His	Arg	His	Cys 395	Pro	Val	Val	Val	Ser 400

Glu Ala Thr Ile Val Gly Val Arg Lys Thr Gly Gln Ile Trp Pro Asn 405 410 415 Asp Gly Glu Gly Ala Phe His Gly Asp Ala Asp Gly Ser Phe Gly Thr 420 425 Pro Pro Gly Tyr Gly Cys Ala Ala Asp Arg Ala Glu Glu Gln Arg Arg 435 440 445 His Gln Asp Gly Leu Pro Tyr Ile Asp Asp Ser Pro Ser Ser Pro 450 455 460 His Leu Ser Ser Lys Gly Arg Gly Ser Arg Asp Ala Leu Val Ser Gly 465 470 475 480 Ala Leu Glu Ser Thr Lys Ala Ser Glu Leu Asp Leu Glu Lys Gly Leu 485 490 495 Glu Met Arg Lys Trp Val Leu Ser Gly Ile Leu Ala Ser Glu Glu Thr 500 505 510 Tyr Leu Ser His Leu Glu Ala Leu Leu Pro Met Lys Pro Leu Lys 515 520 525 Ala Ala Thr Thr Ser Gln Pro Val Leu Thr Ser Gln Gln Ile Glu 535 540 Thr Ile Phe Phe Lys Val Pro Glu Leu Tyr Glu Ile His Lys Glu Phe 545 550 555 560

Tyr Asp Gly Leu Phe Pro Arg Val Gln Gln